

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 1, 3-9, 13-20 and 22 pending in the application with claims 1 and 3-7 withdrawn from consideration as being directed to a non-elected invention.

The specification is objected to because the references to the claims on pages 9-20. By this Amendment, Applicant has amended the claims to delete the references to the claims, as suggested by the Examiner. Accordingly, the Examiner is requested to remove the objection to the specification.

Claims 8, 9, 13-20 and 22 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In addition, claims 8, 9, 13-20 and 22 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

With regard to the § 112, second paragraph, rejection of claim 8, the Examiner contends that the scope and meaning of the combination of the peripheral protuberant portion subject matter described at lines 4-8 and the chamfer portion subject matter described at lines 9-13 is unclear. In particular, the Examiner asserts that it is unclear if (1) the peripheral protuberant portion and the chamfer portion are separate and mutually exclusive structural features of the tread or (2) the peripheral protuberant portion comprises the subject matter of the chamfer portion. By this Amendment, Applicant has amended claim 8 to improve clarity. In particular, claim 8 now recites:

a portion of said peripheral protuberant portion extending from the top of the peripheral protuberant portion to the groove wall surface is chamfered, and an angle formed by a tangential line of the chamfer portion with respect to a

horizontal extension line of the surface of the top of the peripheral protuberant portion in a heightwise cross section perpendicular to the groove wall surface increases from the top of the peripheral protuberant portion to the groove wall surface.

With regard to the § 112, first paragraph, rejection of claim 8, the Examiner maintains that the original disclosure describes the chamfer portion and the peripheral protuberant portion as separate embodiments and none of the figures of the original disclosure illustrate the combination of the chamfer portion and the peripheral protuberant portion. Further, the Examiner asserts that “[t]he original disclosure fails to describe how those two apparently separate structural features of the tread are combined in a single block.” However, Applicant respectfully submits that the enablement rejection is improper since Figures 5-8 show a peripheral protuberant which is chamfered such that an angle formed by a tangential line of the chamfer portion with respect to a horizontal extension line of the surface of the top of the peripheral protuberant portion in a heightwise cross section perpendicular to the groove wall surface increases from the top of the peripheral protuberant portion to the groove wall surface. Further, as noted by the Examiner, the original disclosure describes this feature at the first full paragraph of page 6.

Accordingly, the Examiner is requested to remove the § 112 rejections of claims 8-20 and 22.

Claims 8-10 and 22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Matsepuro (WO 93/21028). Claims 8-10, 12-19 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsepuro. The Examiner relies on Figure 6 of Matsepuro, which

shows a projection (grouser) having an undulating supporting surface 5, for allegedly disclosing the claimed peripheral protuberant portions recited in claim 8. The Examiner takes the position that “[t]he subject matter relating to the increasing angle theta reads on curved portion between the top of the peripheral protuberant portion and the groove wall ... [and] an increasing angle theta as described in claim 8 reads on a convexly curved edge having one radius or plural radii.”

By this Amendment, Applicant has amended claim 8 to require:

the peripheral protuberant portion is disposed in vicinities of the end edges on at least one side of the block in a transverse direction of the tire; and

a dimension HH1 measured along a radial direction of the tire, between an intersection point of a groove wall surface of the block and the peripheral protuberant portion, and a height position of the top of the peripheral protuberant portion is greater than 0.5 mm and less than or equal to 2.5 mm.¹

Applicant respectfully submits that Matsepuro does not teach or suggest these features of the claimed invention. In particular, the projections (grouser) shown in Fig. 6 of Matsepuro are provided in both end edges of the block in the circumferential direction of the tire. On the other hand, claim 8 recites that “the peripheral protuberant portion is disposed in vicinities of the end edges at at least one side of the block in a transverse direction of the tire”.

Accordingly, Applicant respectfully submits that claim 8, as well as claims 9, 10 and 22, would not have been anticipated by or rendered obvious in view of Matsepuro.

Claims 8, 9, 13-20 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over DE 3709427 in view of Hasegawa (USP 5,435,364) and at least one of JP 7-257111, JP 8-

¹ See, for example, page 31, lines 13 and 14.

332810 and Marriott (USP 6,386,253). The Examiner relies on DE '427 as the primary reference, and specifically argues that the venting ribs 6 are equivalent to the peripheral protuberant portions in claim 8. The Examiner acknowledges that DE '427 does not teach or suggest blocks formed by circumferential and transverse grooves. However, he argues that this is disclosed by Hasegawa.

The Examiner also acknowledges that DE '427 and Hasegawa do not disclose the increasing angle, but asserts that "it would have been obvious to form the ribs (projections) on the blocks such that the ribs (projections) at the circumferential edges have a convex / curved shape (instead of a triangular shape) in view of the suggestion from at least one of Japan 111, Japan '810 and Marriott to form a rib projection on a surface of a land portion of a tread such that it has a convex/curved shape."

DE '427 teaches that the height of the ribs 6 is "0.3-0.5 mm" (see Abstract). On the other hand, amended claim 8 requires the peripheral protuberant portion has height HH1 which is greater than 0.5 mm and less than or equal to 2.5 mm. Accordingly, the subject matter of claim 8 is not disclosed or suggested by DE '427.

Further, Applicant respectfully submits that the Examiner has not provides a proper basis for the proposed modification of DE '427 in view of Hasegawa. For example, there is no explanation of why one would have replaced the tread elements 1, 2 in DE '427 with the blocks of Hasegawa. This would amount to a complete reworking of the invention in DE '427. Further, if the tread elements 1, 2 in DE '427 (which include the venting ribs 6) were replaced by the blocks in Hasegawa, there is no explanation of why the venting ribs 6 would still be retained.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No. 09/673,738

Thus, Applicant respectfully submits that the rejection is based on an impermissible use of hindsight.

In view of the above, Applicant respectfully submits that claims 8, 9, 13-20 and 22 should be allowable because the cited references do not teach or suggest all of the features of the claims, and one of ordinary skill in the art would not have been motivated to combine and modify the cited references to produce the claimed invention.

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Christopher R. Lipp
Registration No. 41,157

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: November 24, 2004